



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,763	10/09/2001	Horst Pillhoefer	10537/119	9751
26646	7590	07/30/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			MEEKS, TIMOTHY HOWARD	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,763

Applicant(s)

PILLHOEFER ET AL.

Examiner

Timothy H. Meeks

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/14/04 has been entered.

Claim Objections

Applicant is advised that should claims 9 and 11-14 be found allowable, claims 16-21 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

Claims 8, 9, 11-14, and 16-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

Art Unit: 1762

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not reasonably convey that applicants had possession of the entire scope of the added limitation of "wherein the metal donor powder includes a mixture of more than one alloy". While the examiner agrees that the specification at page 4, lines 32-36 and claim 10 disclose that the metal donor powder can include a mixture of a first alloy that has a donor metal content of 40% to 70% by weight and a second alloy having a donor metal content of 30% to 50% by weight, the limitation added to claim 1 includes mixtures containing more than a first alloy with 40% to 70% by weight donor metal content and a second alloy having 30% to 50% by weight donor metal. Possession of this single species of a mixture of alloys does not reasonably convey that applicants had possession of all mixture of alloys, as is now claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-12 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strasser et al. (5,215,785) in view of Hayman et al. (4,156,042).

Strasser discloses a method for coating a hollow body comprising contacting the inner surfaces of the hollow body with a powder mixture containing 80 parts alumina

filler with a particle size of 150 microns, 40 parts of a metal donor and activator, AlTi, and NH₄F, respectively being exemplified, the donor and activator being in the form of spherical particles with an average size smaller than 150 microns (col. 3, line 60 to col. 4, line 7). It is noted that the filler and donor of Strasser includes the situation where the filler and donor have approximately the same average particle size since "less than 150 microns" includes values that are "approximately equal to" 150 microns. As to claim 15, while the range of "less than 150" does not include the value 150, it includes values just under 150, such as 149.99999999999999..... It is reasonable to state that such insignificant difference in particle sizes would not be expected to change the properties of the filler and donor powders. As such it would have been obvious to use a particle size of 150 microns for the donor which is equal to the 150 micron size of the filler because it is well settled that a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties (see *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985)). The AlTi donor contains 50% by weight Al.

Strasser does not disclose a metal halide activator such as a metal halide of the donor metal. However, because Hayman discloses at col. 4, lines 5-22 that AlF_3 is a particularly effective activator for aluminizing by pack cementation in obtaining uniform coatings, it would have been obvious to use this activator to achieve these advantages.

Strasser does not explicitly disclose a mixture of alloys but does disclose use of AlTiC or AlTi alloy for the donor powder as established above. It would have been

Art Unit: 1762

obvious to combine these alloys to use as the donor powder to provide the Al source because both powders are recognized as useful for the purpose of the donor powder and it is well settled that "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose....." (*In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)). As stated above, AlTi contains 50% by weight Al and AlTiC contains about 33% by weight Al.

The range of amounts of donor and activator disclosed by Strasser overlaps the claimed ranges. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 USPQ 549.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strasser in view of Hayman as applied above, and further in view of Warnes et al. (5,989,733).

Use of AlCr donor is not disclosed. However, because Warnes discloses at col. 5, lines 3-13 that such donor is effective for aluminizing by pack cementation, it would have been obvious to use this aluminum donor powder with a reasonable expectation of its being effective for providing the aluminized coating required by Strasser.

Response to Arguments

Applicants' arguments filed on 6/14/04 have been fully considered but are not deemed persuasive.

Applicants argue that Strasser does not disclose a mixture of alloys. The examiner maintains that it would have been obvious to combine the two alloys disclosed by Strasser to use as the donor powder to provide the Al source because both powders are recognized as useful for the purpose of the donor powder and it is well settled that "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose....." (*In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)). As stated above, AlTi contains 50% by weight Al and AlTiC contains about 33% by weight Al.


Applicants argue that the new claims are patentable as the range "less than 150" does not include 150 as is required by new claim 15. However, while the range of "less than 150" does not include the value 150, it includes values just under 150, such as 149.99999999999999..... It is reasonable to state that such insignificant difference in particle sizes would not be expected to change the properties of the filler and donor powders. As such it would have been obvious to use a particle size of 150 microns for the donor which is equal to the 150 micron size of the filler because it is well settled that a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties (see *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985)).

Art Unit: 1762

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy H Meeks whose telephone number is 571-272-1423. The examiner can normally be reached on Mon, Wed, Thur 6-6:30, Fri 6-10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 571-272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy H Meeks
Primary Examiner
Art Unit 1762

1rcenf